Over the years, my journey through school and my acquisition of knowledge has been very interesting to say the least. I went through periods where my performance at school was stellar, and there where times that were sub-par. Regardless of the variability of my past performance at school, I always possessed a desire to learn. I read books about a plethora of subjects as a child; the list includes ships, trains, aviation, zoology, astronomy, paleontology, history, subjects I now know to be named geomorphology and oceanography, and maps. However, the weather reigned supreme.

I ate up anything involving the weather. The Weather Channel was a constant on the television; whenever there was a severe weather watch, I could be found outside waiting for the bad weather to roll in, much to mother’s chagrin. I found cloud classification charts and Köppen climate maps very interesting, but I was particularly enamored by tornadoes.

Initially, I was fascinated with their appearance; I always tried to find the most lavishly illustrated books about the subject. Indeed, the sight of a rotating column of air that can resemble an elephant’s trunk is mesmerizing, especially to a boy with an unusual attraction to the state of the atmosphere. As time progressed, however, I strived to learn as much as possible about them. I tried to locate information about the specifics of their formation, where and when they most frequently occurred, historical tornado stories, and any other minute

details I could find. It was a fascination I had for most of childhood, and I amassed as much knowledge as possible for a young child.

By the time I got to high school though, my interest had unfortunately waned. My high school offered no classes in meteorology or climatology; they were merely footnotes in introductory earth science and geography classes. This fact, combined with having read all related books in area libraries, led to decreased interest. When I finished high school, I graduated with grades that were average at best. It was obvious that I did the minimum to graduate and little else.

After high school, I was still undecided about my future. I was not sure if I wanted to work full time and make a career out of it, or if I wanted to return to school and become a serious student. Therefore, I decided to take a class at the local community college to "get my feet wet". The class was "Introduction to Weather and Climate". It was the type of class that I had wished to take for a long time; it renewed my interest in learning. It did not, though, solve the problem of where the money would come from to allow me to go to school full-time. Additionally, I was now almost 5 or 6 years removed from reading any weather or climate related material. This made the choice of a major difficult; I enjoyed many subjects, but none of them stood out as a potential major. Therefore, I took classes pertaining to social and physical sciences, a good generalization of my interests.

Things now started to go in my favor. I previously did not realize that my interests were similar to a geography major. Because of my interest in weather and climate, as well as other physical sciences, I chose to major in physical geography. Now that I had decided on an area of study, I needed money to take a full-time class schedule. The only way to accomplish this was to work full-time. I took on 40-48 hours a week at Jewel/Osco Inc. as an assistant produce manager, in order to pay for my associate degree. Doing both work and school full-time was not easy. Nonetheless, I possessed a new outlook on learning, and what seemed to be a desire to compensate for my prior mediocre school performance. These new found attributes combined to form a hard working student who did not settle for anything less than his best. By the time I graduated from my community college and prepared to transfer to a full-time university, I had more than compensated for any previous second-rate academic performance. I was a member of Phi Theta Kappa, The South Suburban Community College Honors Program, Dean’s List, Presidential Scholar, and possessed a 4.0 GPA. I was now prepared to transfer to Carthage College and study physical geography, with a focus on climatology.

In order to prepare myself for graduate school, at Carthage College I took all related physical geography classes and Geographic Information System classes. I learned various mapping techniques

used in physical geography to produce weather maps. Most importantly, Carthage afforded me the opportunity to do undergraduate research in the form of a senior thesis.

I finally had the chance to take a subject of interest, develop my own hypothesis, and research it in detail within a given time limit. My research concerns how the spatial and temporal distribution, as well as how the frequency and intensity of tornadoes will vary with regards to ENSO phase.

My present hypothesis states that there is no difference in the frequency of tornadoes based on ENSO phase, but there is an increased likelihood of violent (F4-F5) tornadoes during a La Niña phase. Additionally, I believe there is an increase in the number of tornadoes in the southern plains and gulf coast states during the El Niño phase, particularly during the first four months of the year due to a northward shift of the sub-tropical jet stream.

In addition to the undergraduate research, I have also received awards for my academic work at Carthage. I have made the Dean's List, received several scholarships, including the Department of Geography Scholarship, and became a Geography Fellow (see resume). Additionally, my GPA has remained high at 3.9896, with a 4.0 within my major.

Though I am grateful to do a guided independent study into the topic, I feel that the constraints of time and my status as an

undergraduate student prevent me from fully realizing the potential of this study. It is my intent to pursue a Master's in Atmospheric Science, and commence a more in depth study of the relationship between tornadoes and ENSO. After completing my Master's Degree, I would like to pursue my Ph.D. and do further work in this field, specifically to investigate possible links between years with weak Madden-Julian Oscillation Activity (which itself is associated with La Niña years) and the frequency and spatial distribution of significant tornadoes. I feel that Illinois, with its renowned Atmospheric Science department, is a great place for me to continue my education and do further research on the relationship between tornado frequency, intensity, distribution, and ENSO phase.